BookletChart™

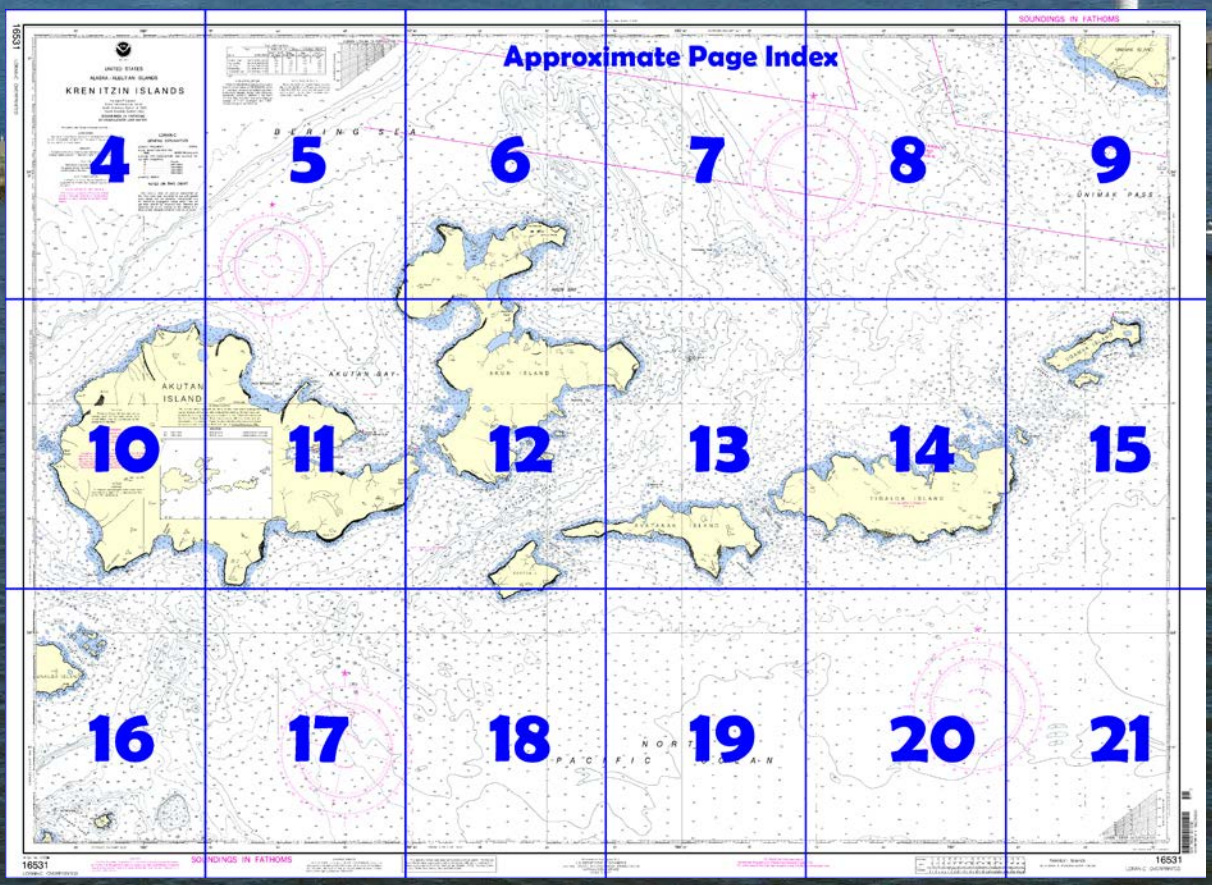
Krenitzin Islands

NOAA Chart 16531

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

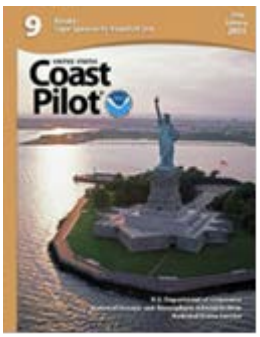
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=16531.



(Selected Excerpts from Coast Pilot)
Akutan Island, largest of the Krenitzin Group, is about 9 miles NE from Unalaska Island and is separated from the latter by Akutan and Unalga Passes.
The shore of Akutan Island bordering on Akutan Bay and Akun Strait is described in connection with those bodies of water.
Akutan Peak, 4,244 feet high, rises about 600 feet on the S rim of a crater, about 1.2 miles in diameter, to form a sharp summit. It is the highest peak between Unimak and Unalaska Islands.
North Head, the N end of Akutan Island, is a high bold cliff, with a large, deep grassy valley in the otherwise high shore on its E side. About 2 miles SW of the cape, a narrow, grassy valley separates the high ridge behind North Head from another high ridge; the W side of the valley is a bluff. **North Head Light** (54°13'16"N., 165°58'47"W.), 60 feet (18.3 m) above the water, is shown from a pole with a red and white diamond-shaped daymark on the point 1.5 miles W of the head.
Open Bight is an indentation just E of North Head. No depths greater than 10 fathoms are found in the bight. It is exposed to N swell from the Bering Sea and is not recommended as an anchorage.
A rock awash is about 250 yards off the rounded point just E of Open Bight; a covered rock is inshore from the rock awash.
Lava Point, 6 miles SW of North Head, is a fairly flat lava bed varying in elevation from 150 feet along the shore to 300 feet at the base of the hill back of it. The cliffs all around the point are nearly vertical except in places where they are broken off. Numerous tunnels are under the cliffs. The NW face of the hill back of the point is concave and very steep.
At the end of Lava Point is a flat rock having the same height as the point and slightly detached from it. In foggy weather low points will sometimes be seen below the fog, and the lava flow terminating in Lava Point often enables the navigator to identify this point. Due to the similarity of the headlands along these islands, this area is one where the navigator has unusual difficulty in identifying landmarks.
Lava Bight, just S of Lava Point, provides temporary anchorage in S and E weather. On the S shore of the bight are several waterfalls, including a large one to the E of a group of small ones. The anchorage is in 12 to 15 fathoms, sandy bottom, 0.5 mile from shore, with the large waterfall bearing **160°.**
A large circular reef is off the W coast of Akutan Island between Lava Bight and Reef Point; the outer edge of the reef is about 0.9 mile from the shore. The reef is marked by heavy kelp and is studded with numerous rocks which uncover 3 feet. The W part of North Head open at Lava Point is a good range to clear this reef in passing to the N of it. Between the reef and the shore is a passage which has a least depth of 2¾ fathoms and is clear of kelp; small boats use the passage to avoid the disturbed water outside.
Reef Bight, on the S side of the reef, is not recommended for anchorage because of poor holding ground.
Reef Point, the W extremity of Akutan Island, is steep and rocky and reaches a height of 500 feet. A low rock 150 yards off the point has the appearance of a stranded freighter when seen from the N or S.
Currents.–Flood currents with an estimated velocity of 2 knots set along the W shore of Akutan Island as far N as Reef Point. Near Lava Point an ebb current of 1 knot has been observed. Off North Head, currents are weak. A N wind blowing against a flood current produces tide rips as far N as Lava Point.
The S shore of Akutan Island between Green Bight and Sarana Bay is a steep rocky bluff with numerous boulders that extend about 200 yards offshore. A rectangular rock, 75 feet high, is 225 yards offshore, about 1 mile SW from the S end of Green Bight. Numerous waterfalls are visible along this shore in rainy weather.

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Juneau	Commander 17th CG District Juneau, Alaska	(907) 463-2000

Table of Selected Chart Notes

CAUTION

Extremely heavy tide rips and strong currents which at times make control of a vessel difficult may be encountered in the passages on this chart.

For Symbols and Abbreviations see chart No. 1

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 3.101″ southward and 7.095″ westward to agree with this chart.

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 5° from the normal variation have been observed on Tigalda Island and as much as 3° between Akutan and Rootok Islands.

Mercator Projection
Scale 1:80,000 at Lat. 54°08'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE B

CAUTION

Numerous submerged rocks have been reported at a depth of 12 feet at position 54°00'12"N 166°06'06"W.

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY ..... 100kHz.
PULSE REPETITION INTERVAL
9990 ..... 99,900 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators)
M ..... Master
W ..... Secondary
X ..... Secondary
Y ..... Secondary
Z ..... Secondary
EXAMPLE: 9990-X

RATES ON THIS CHART

9990-X 9990-Y 9990-Z

The Loran-C lines of position overprinted on this chart have been prepared for use with ground wave signals and are presently compensated only for theoretical propagation delays which have not yet been verified by observed data. Mariners are cautioned not to rely entirely on the lattices in inshore waters. Skywave corrections are not provided.

HEIGHTS

Elevations of rocks and lights are in feet above Mean High Water Contour values and summit elevations refer to Mean Sea Level.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, AK, or at the Office of the District Engineer, Corps of Engineers in Anchorage, AK. Refer to charted regulation section numbers.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

UPDATING SERVICE

FOR THIS CHART, a listing of NOTICE TO MARINERS corrections subsequent to the date shown in the lower left hand corner is available from the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Consult larger scale charts for survey information in areas outlined in magenta. Refer to Chapter 1, United States Coast Pilot.

COLREGS, 80.1705 (see note A)
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

TIDAL INFORMATION

Place Name	(LAT/LONG)	Height referred to datum of soundings (MLLW) Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
		feet	feet	feet	feet
Scotch Cap	(54°24'N/164°44'W)	5.4	4.8	1.5	-3.0
Tigalda Bay	(54°07'N/164°59'W)	3.3	2.8	1.0	-2.5
Akun Bay	(54°14'N/165°32'W)	3.0	2.7	1.1	-2.5
Trident Bay	(54°08'N/165°32'W)	4.1	3.4	0.9	-2.5
Akutan Harbor	(54°08'N/165°48'W)	3.9	3.7	1.3	-2.5

(102)

16531 LORAN-C OVERPRINTED

05' 166° 55'

25'

54° 20'

15'

UNITED STATES

ALASKA - ALEUTIAN ISLANDS

KREN ITZIN ISLANDS

Mercator Projection
Scale 1:80,000 at Lat. 54°08'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

For Symbols and Abbreviations see chart No. 1

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

HEIGHTS

Elevations of rocks and lights are in feet above Mean High Water Contour values and summit elevations refer to Mean Sea Level.

CAUTION

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AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 5° from the normal variation have been observed on Tigalda Island and as much as 3° between Akutan and Rootok Islands.

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY .....100kHz.

PULSE REPETITION INTERVAL
9990 .....99,900 Microseconds

STATION TYPE DESIGNATORS: (Not individual station letter designators)
M .....Master
W .....Secondary
X .....Secondary
Y .....Secondary
Z .....Secondary

EXAMPLE: 9990-X

RATES ON THIS CHART

9990-X 9990-Y 9990-Z

The Loran-C lines of position overprinted on this chart have been prepared for use with ground wave signals and are presently compensated only for theoretical propagation delays which have not yet been verified by observed data. Mariners are cautioned not to rely entirely on the lattices in inshore waters. Skywave corrections are not provided.

TIDAL I

Place Name	(LAT/LONG)	Hc Mea Hig
Scotch Cap	(54°24'N/164°44'W)	
Tigalda Bay	(54°07'N/164°59'W)	
Akun Bay	(54°14'N/165°32'W)	
Trident Bay	(54°06'N/165°32'W)	
Akutan Harbor	(54°08'N/165°48'W)	

(102)

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 3.101″ southward and 7.095″ westward to agree with this chart.

9990-Z-48300 9990-X-18100 18095 18090 18955 18105 18110 9990-Z-48250 9990-Y-34750 34755 34760 34765 34770 34740 34745 48320 48310 48290 48280 48270 48260 48240 48230 48220 Tide rips VAR 12° ANNUAL DECR

Joins page 10

4

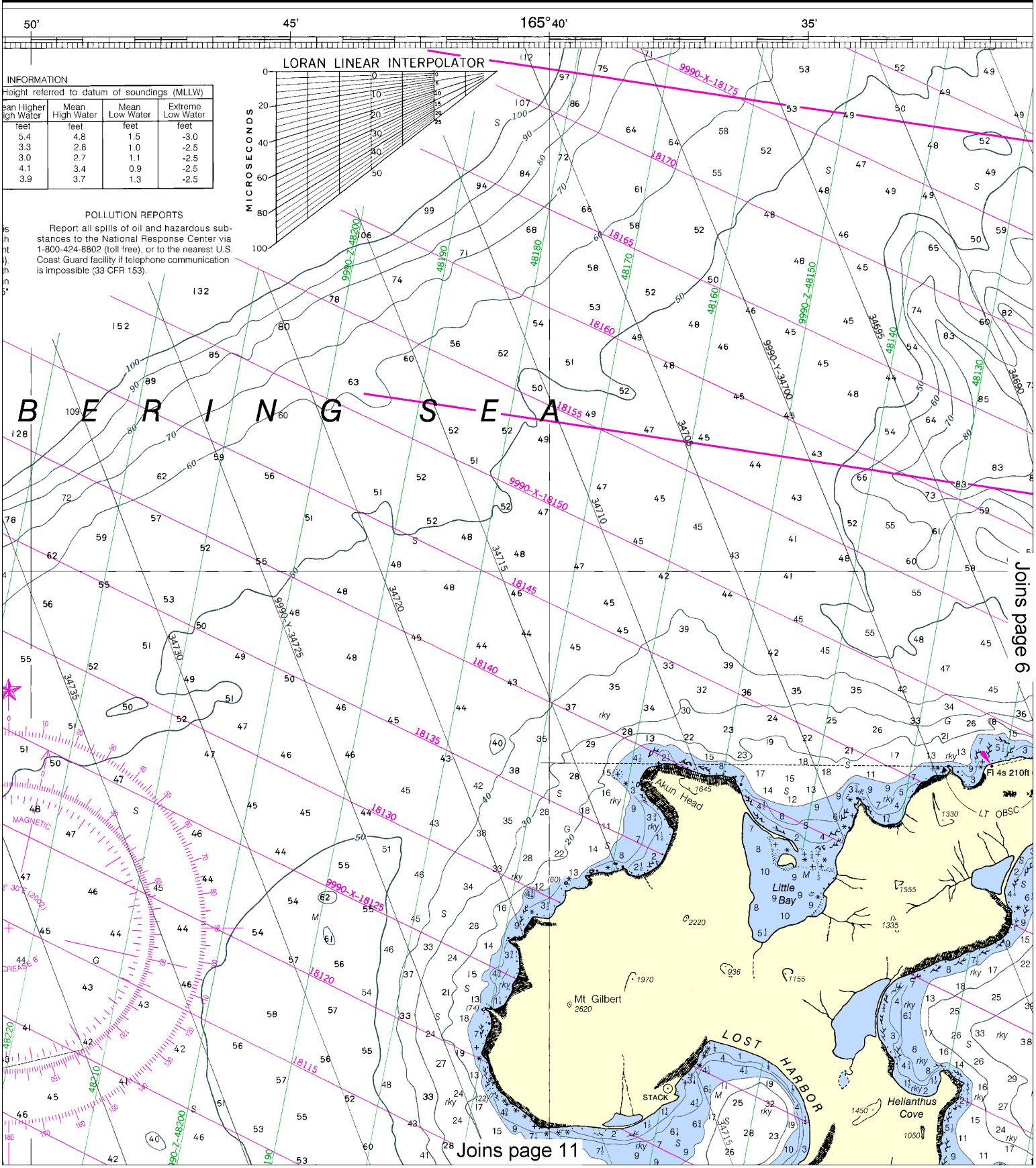
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

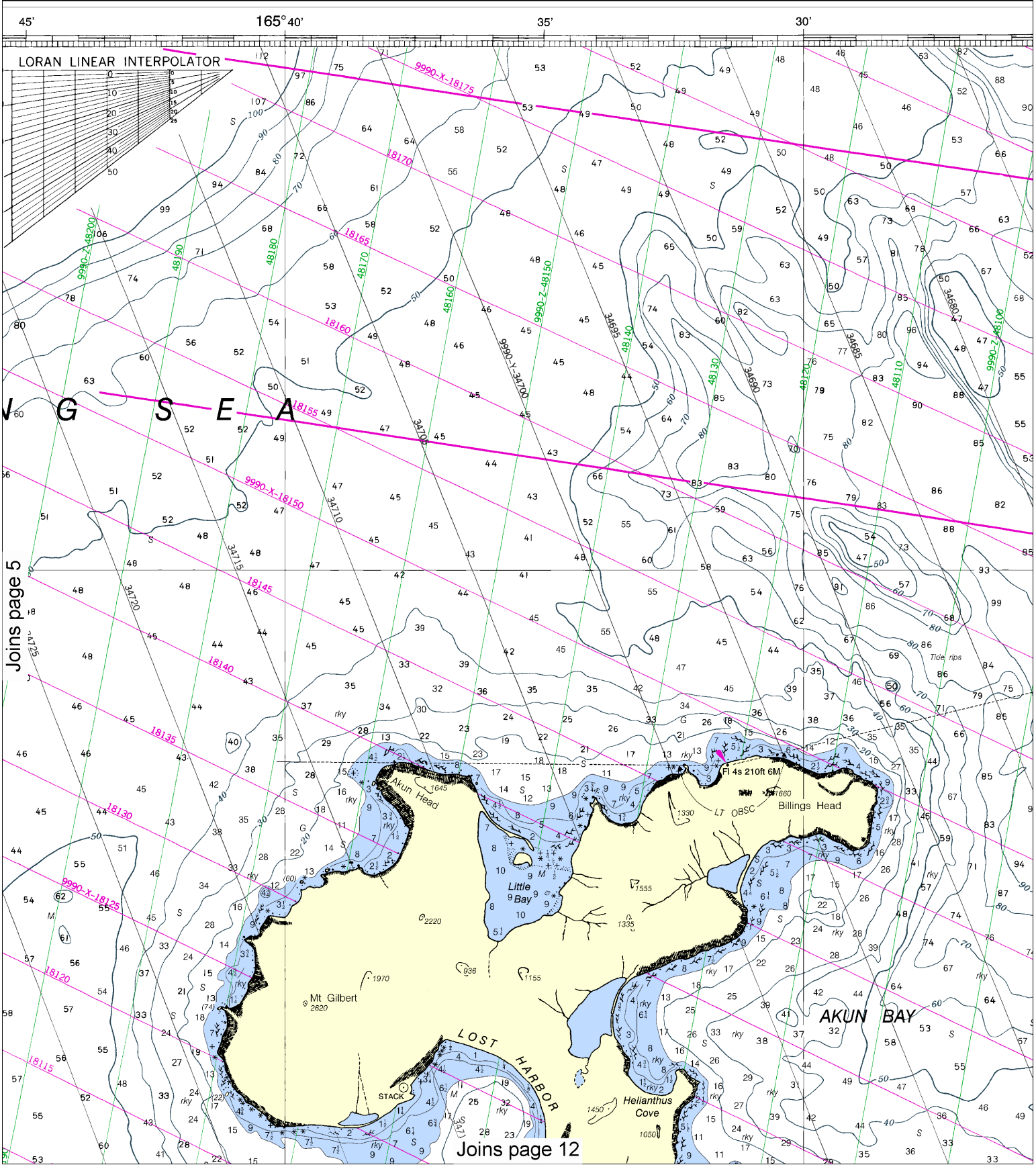
Nautical Miles: 1 0 1 2 3 4 5 6 7

Yards: 1000 0 2000 4000 6000 8000 10000

See Note on page 5.



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:106667. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



6

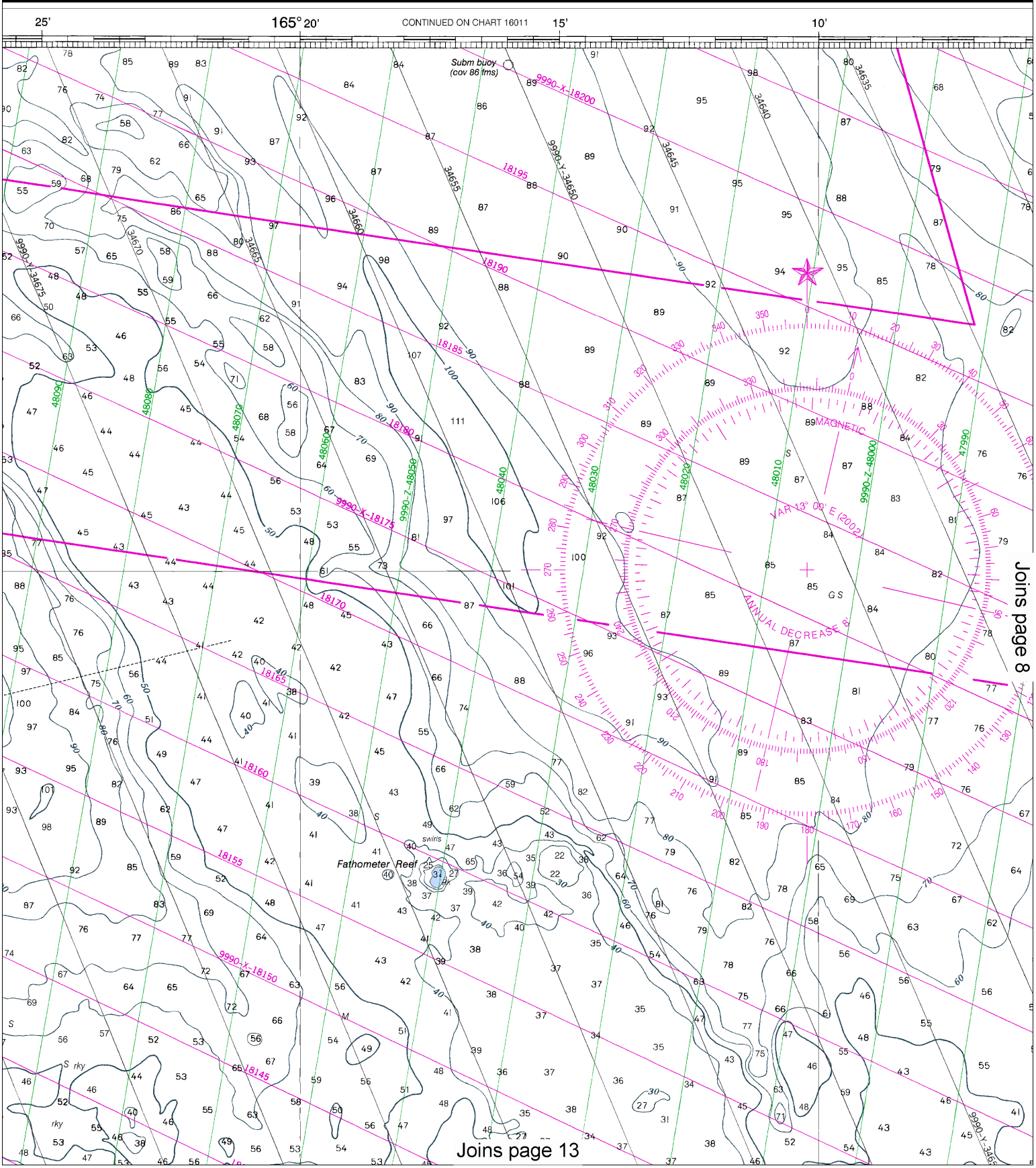
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

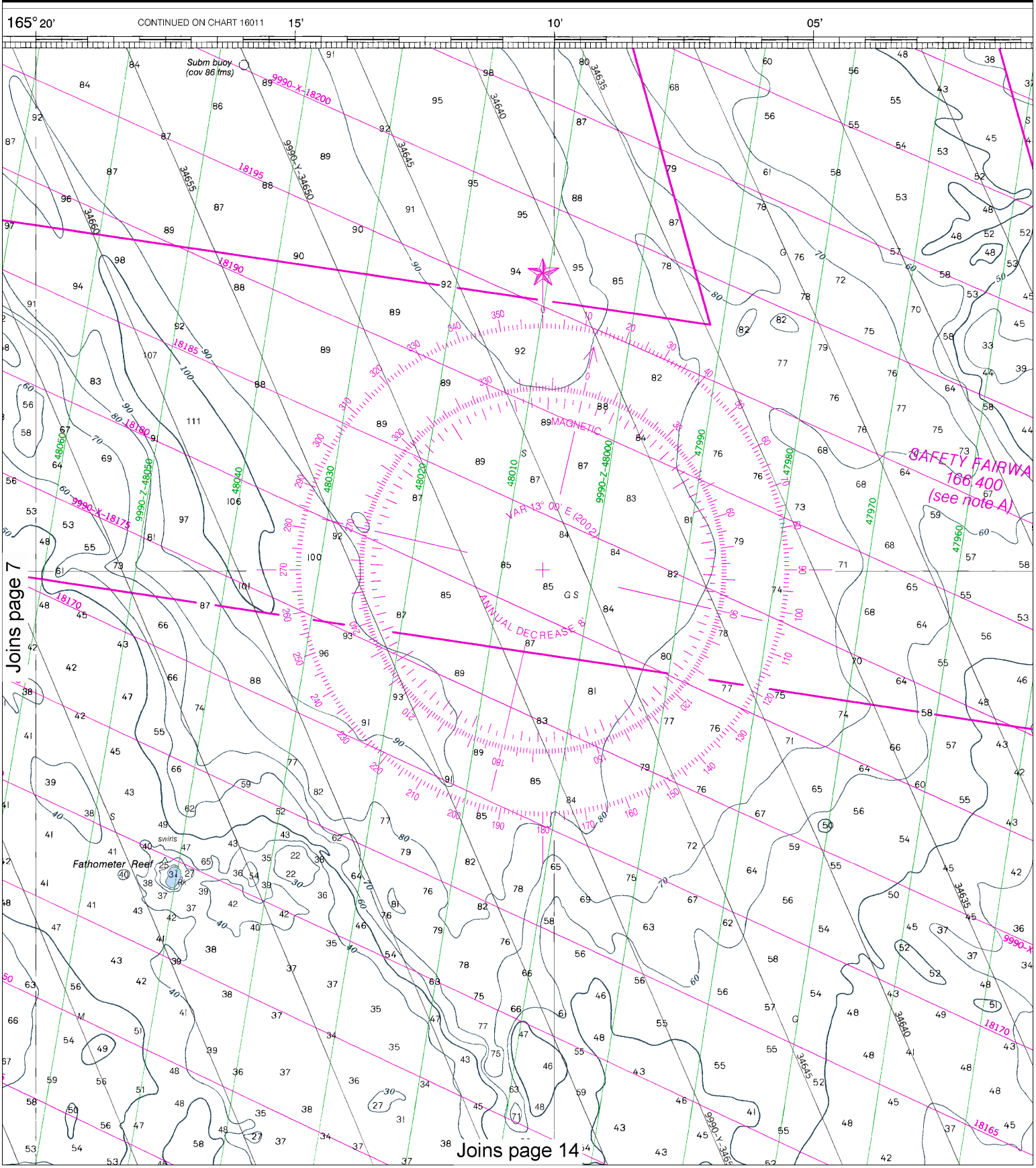
Nautical Miles: 1 0 1 2 3 4 5 6 7

Yards: 1000 0 2000 4000 6000 8000 10000

See Note on page 5.



This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 0313 1/15/2013,
NGA Weekly Notice to Mariners: 0413 1/26/2013,
Canadian Coast Guard Notice to Mariners: 1012 10/26/2012.



Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles

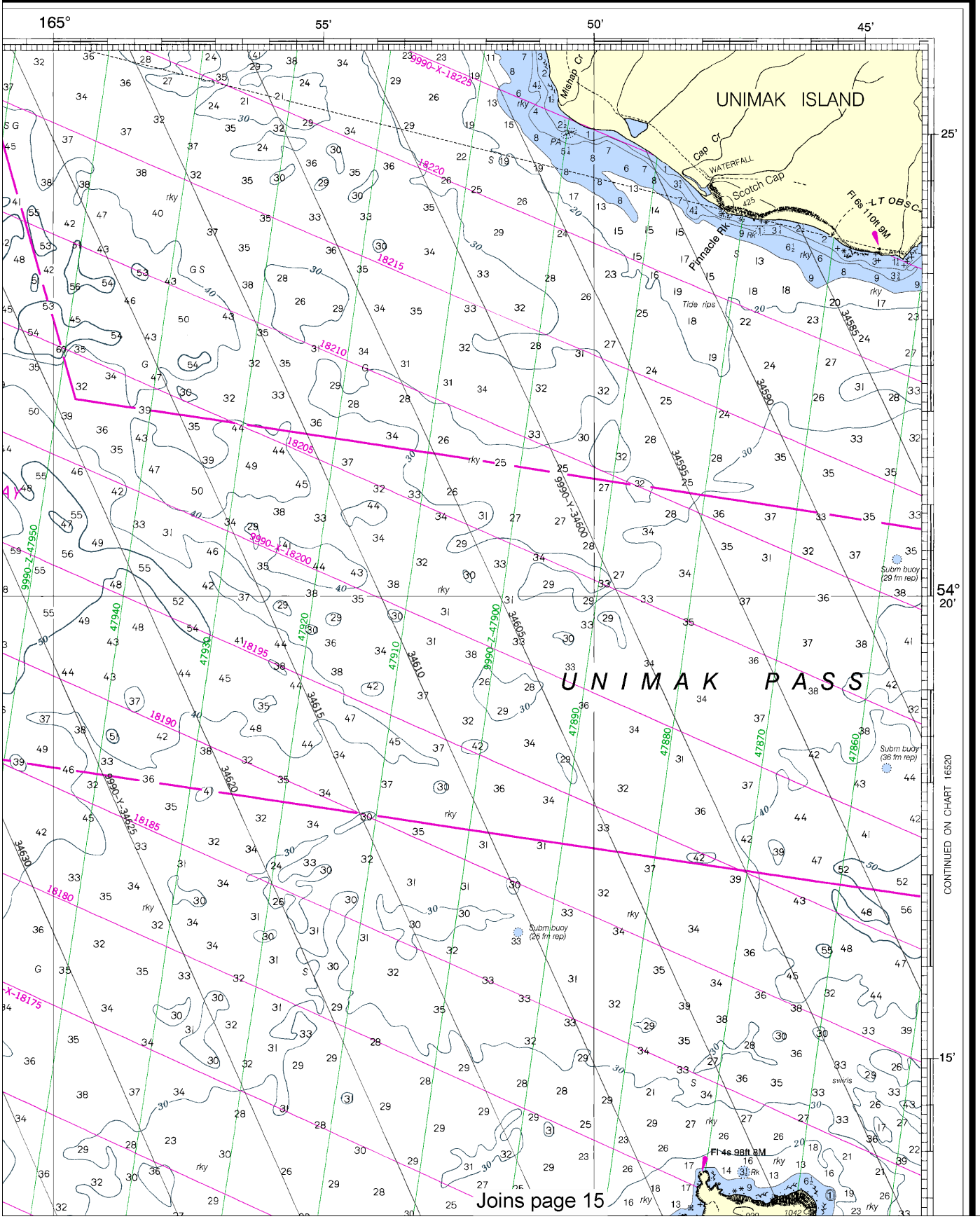
1 0 1 2 3 4 5 6 7

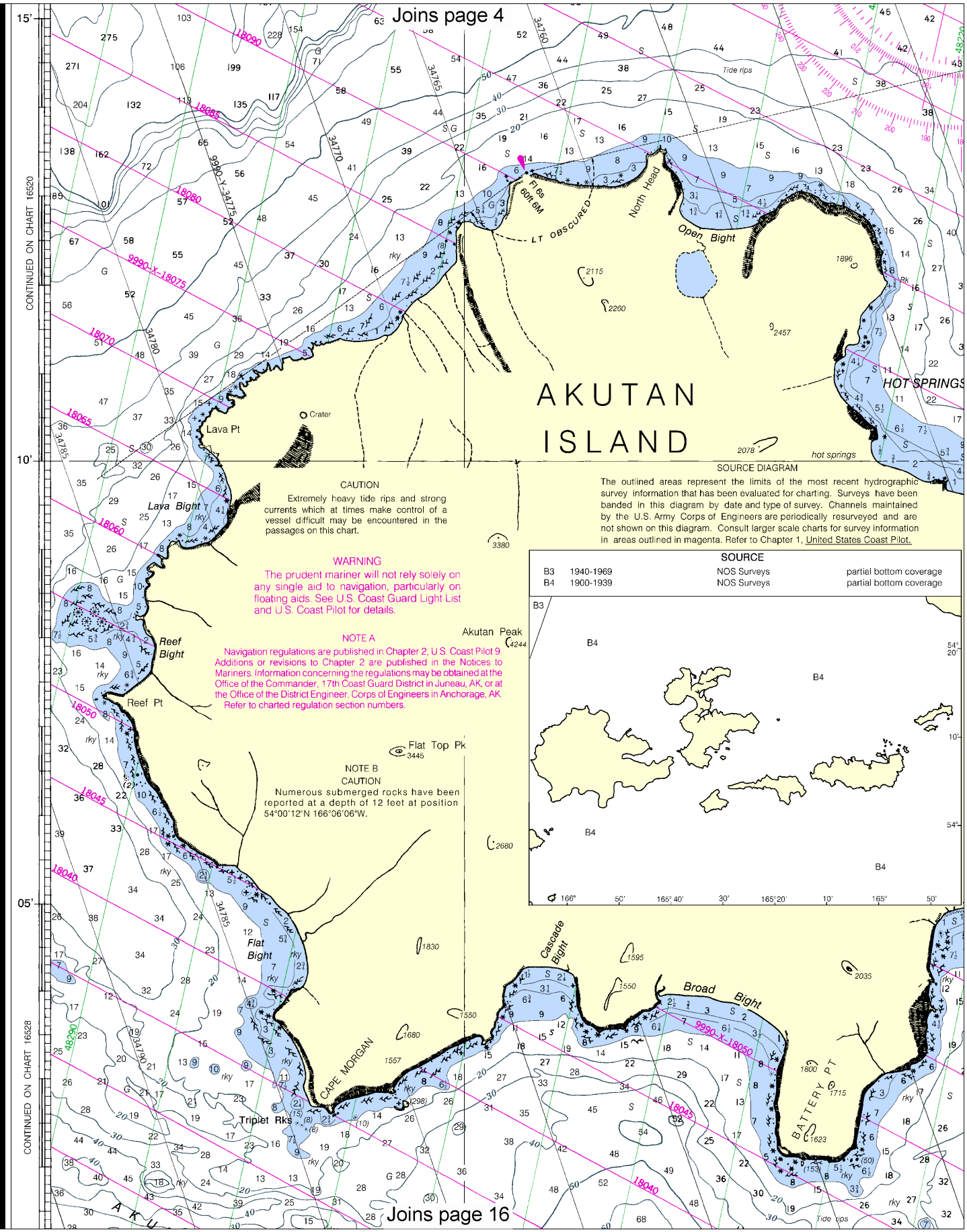
Yards

1000 0 2000 4000 6000 8000 10000

Note: Chart grid lines are aligned with true north.

SOUNDINGS IN FATHOMS





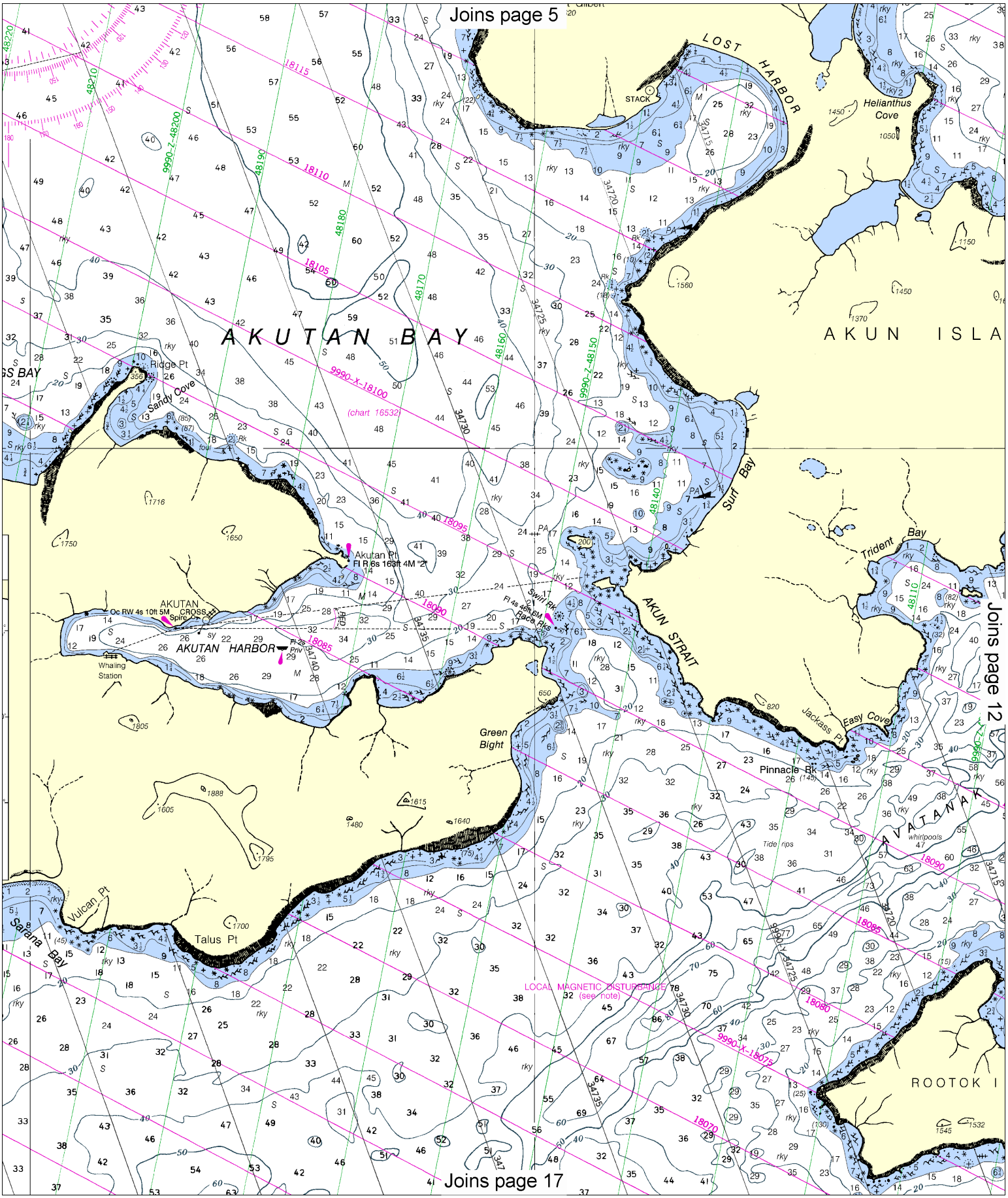
Note: Chart grid lines are aligned with true north.

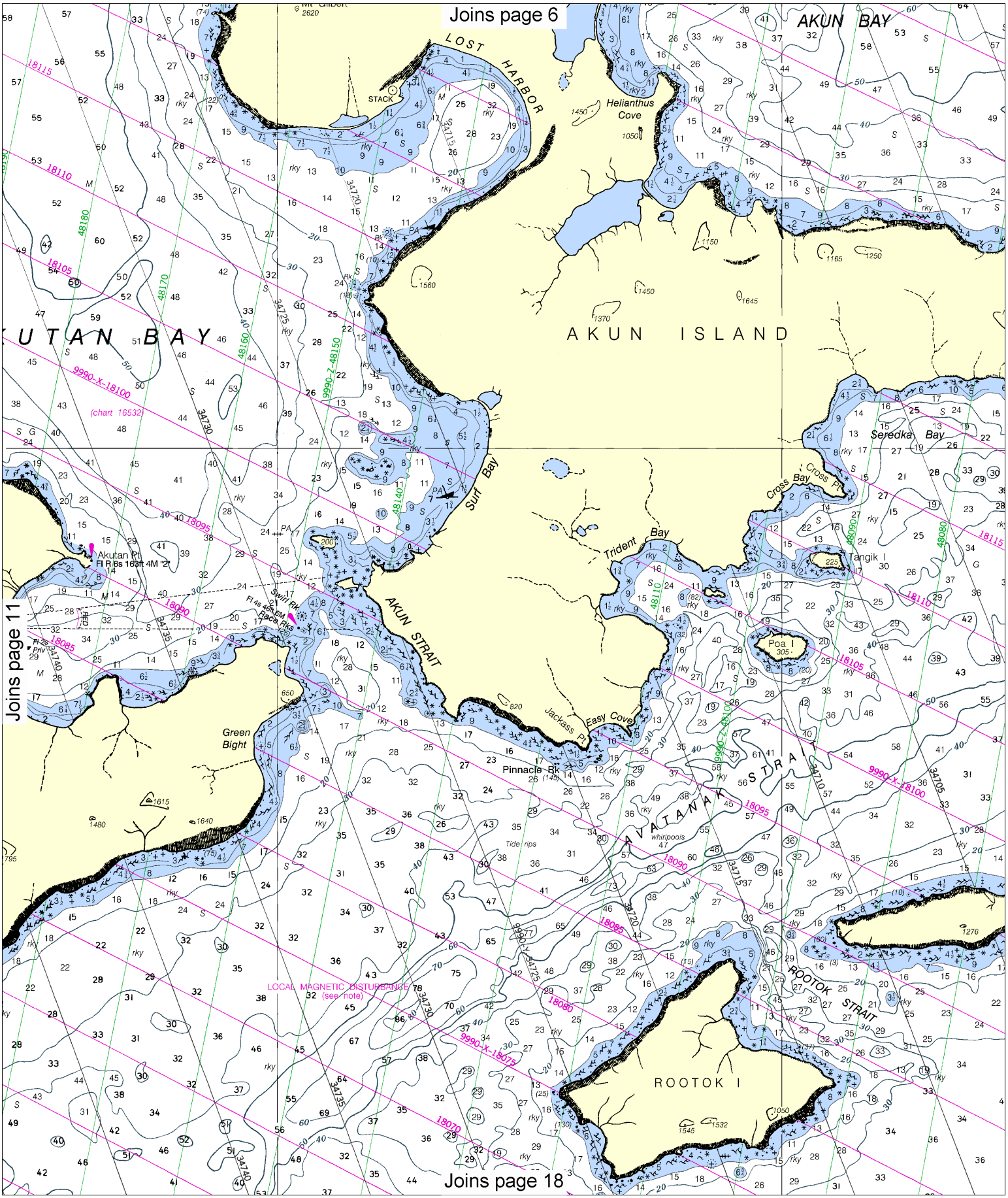
Printed at reduced scale. ~~SCALE 1:80,000~~

Nautical Miles: 1 0 1 2 3 4 5 6 7

Yards: 1000 0 2000 4000 6000 8000 10000

See Note on page 5.


Joins page 5
LOST HARBOR
STACK
Helianthus Cove
AKUTAN BAY
AKUN ISLA
Ridge Pt
Sandy Cove
(chart 16532)
Surf Bay
Trident Bay
Akutan Pt
Fl R 6s 163ft 4M "2"
AKUTAN CROSS
Oc RW 4s 10ft 5M
Spire
AKUTAN HARBOR
Whaling Station
Swift Rk
AKUN STRAIT
Jackass Pt
Easy Cove
Green Bight
Pinnacle Rk
AVATANAK
Tide rips
whirlpools
Vulcan Pt
Salana Bay
Talus Pt
LOCAL MAGNETIC DISTURBANCE (see note)
ROOTOK I
Joins page 12
Joins page 17



12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

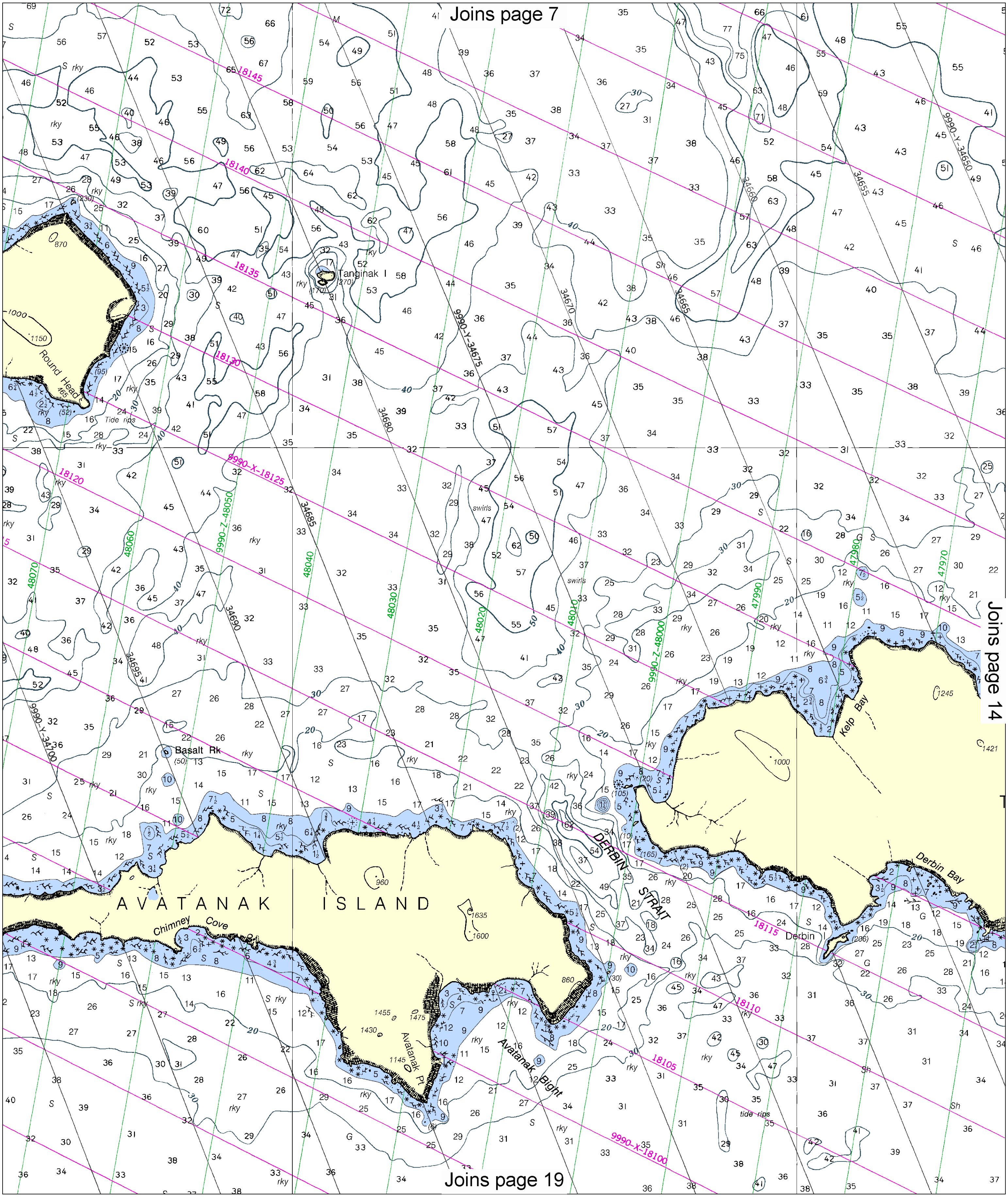
Nautical Miles

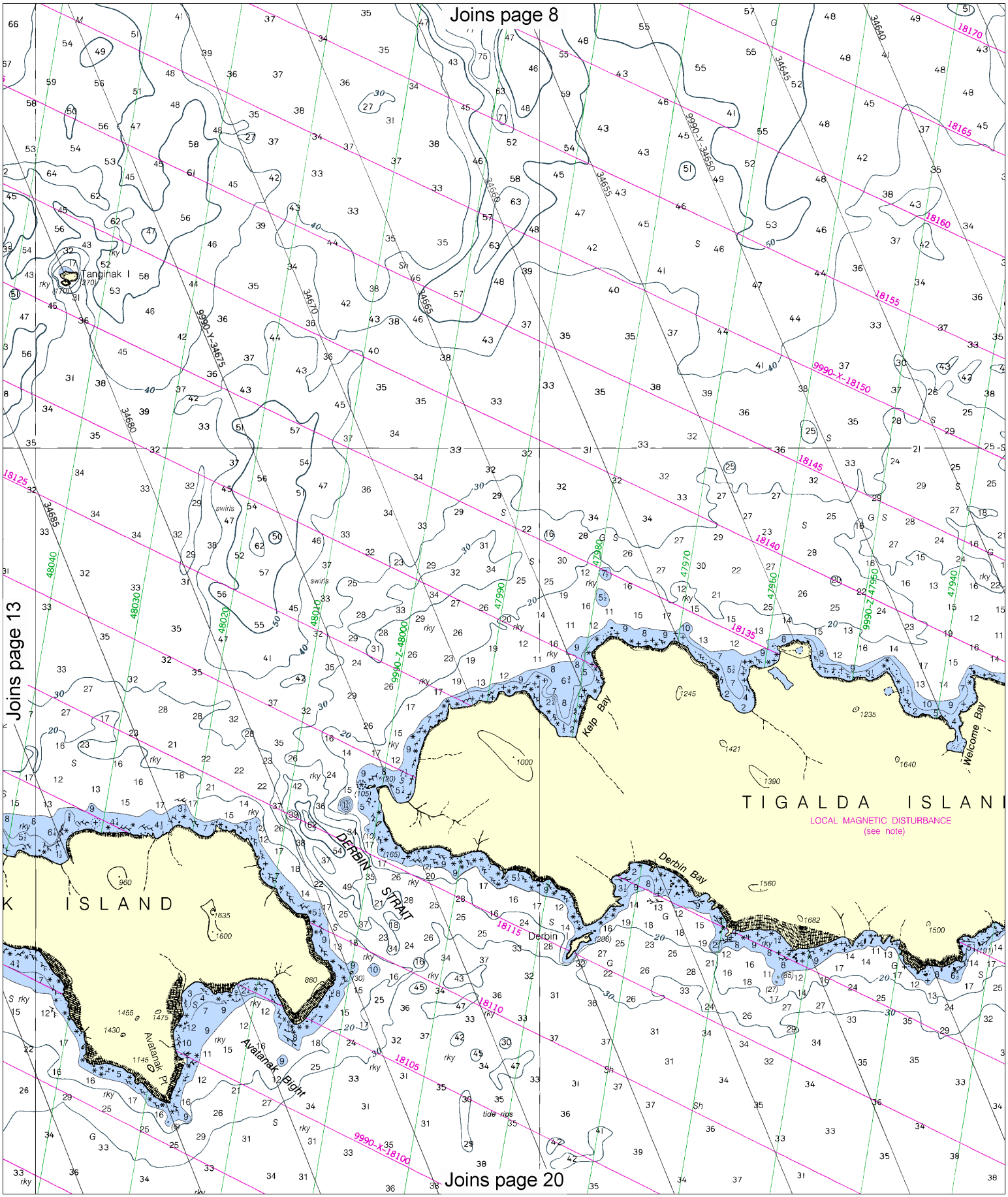
1 0 1 2 3 4 5 6 7

Yards

1000 0 2000 4000 6000 8000 10000

See Note on page 5.


Joins page 7
Tanginak I
Round Head
Tide rips
swirls
Basalt Rk
Joins page 14
Kelp Bay
A V A T A N A K   I S L A N D
Chimney Cove
DERBIN STRAIT
Derbin Bay
Derbin I
Avatanak Pt
Avatanak Bight
tide rips
Joins page 19



14

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

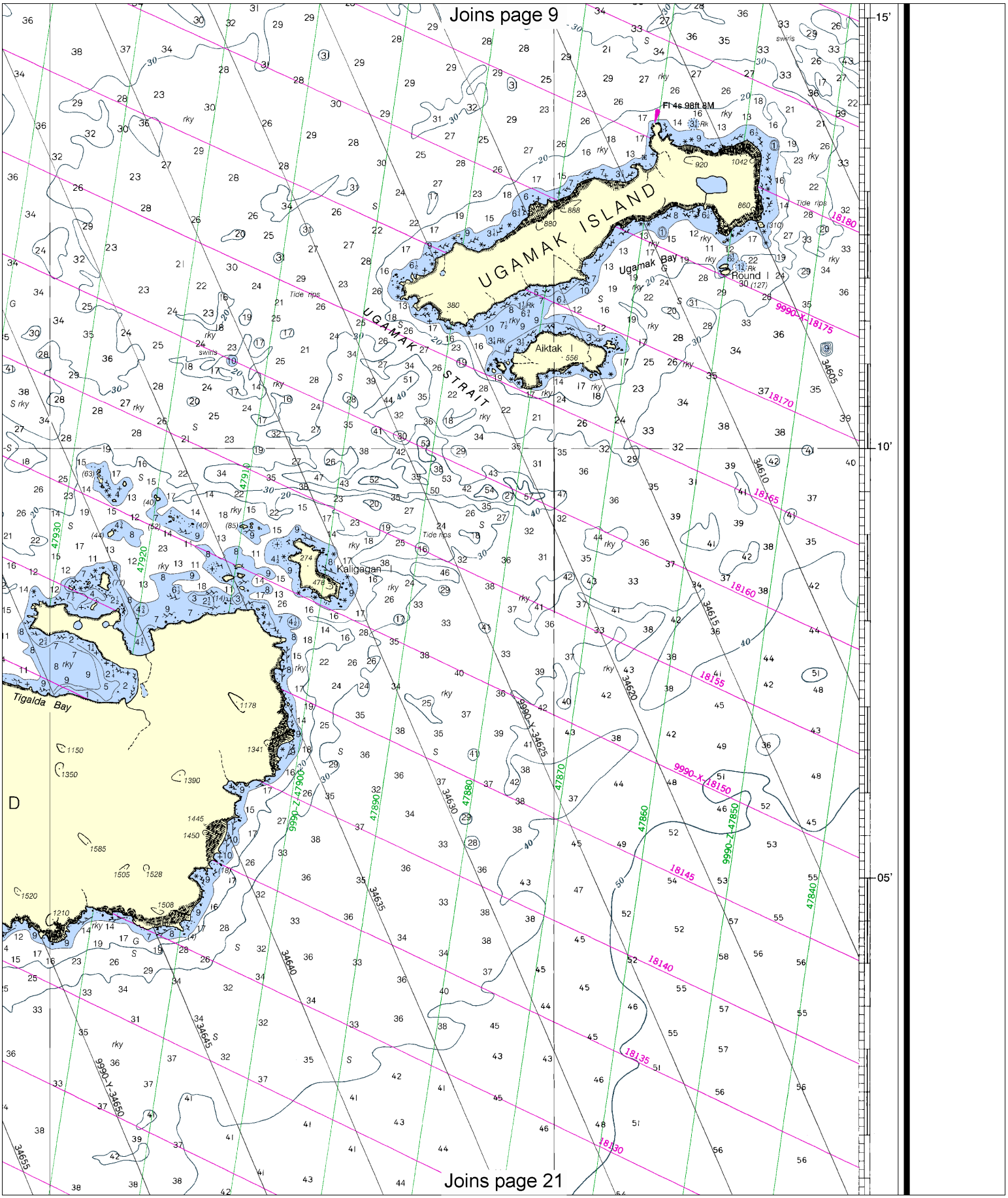
See Note on page 5.

Nautical Miles

1 0 1 2 3 4 5 6 7

Yards

1000 0 2000 4000 6000 8000 10000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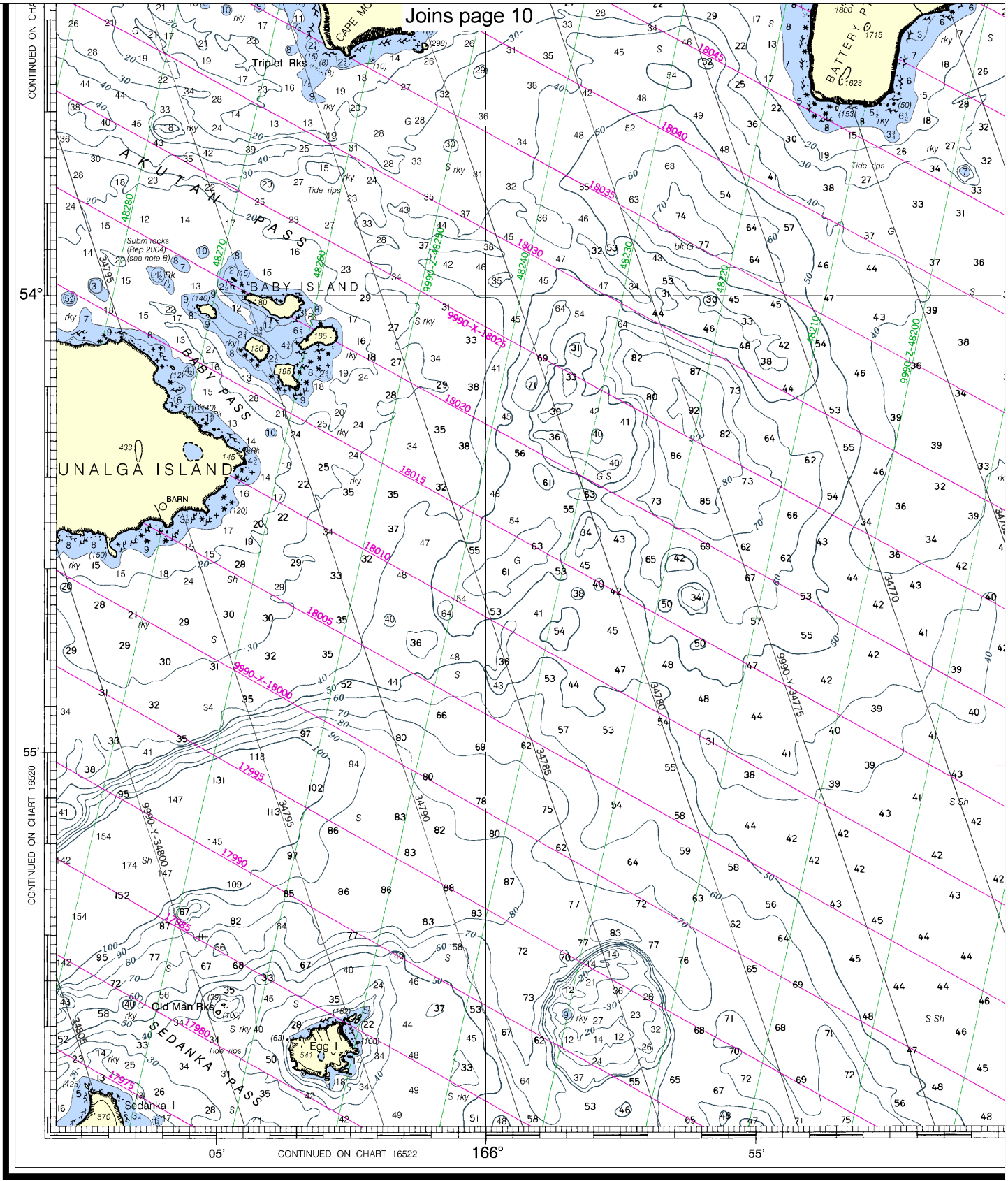
UGAMAK ISLAND
UGAMAK STRAIT
Ugamak Bay
Round I
Aiktak I
Fl 4s 98ft 8M
Kaligagan
Tigalda Bay
Tide rips
15'
10'
05'
Joins page 21



7th Ed., Feb. 16/02■

16531

LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the date shown in the lower left hand corner.

SOUNDINGS IN FATH

16

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

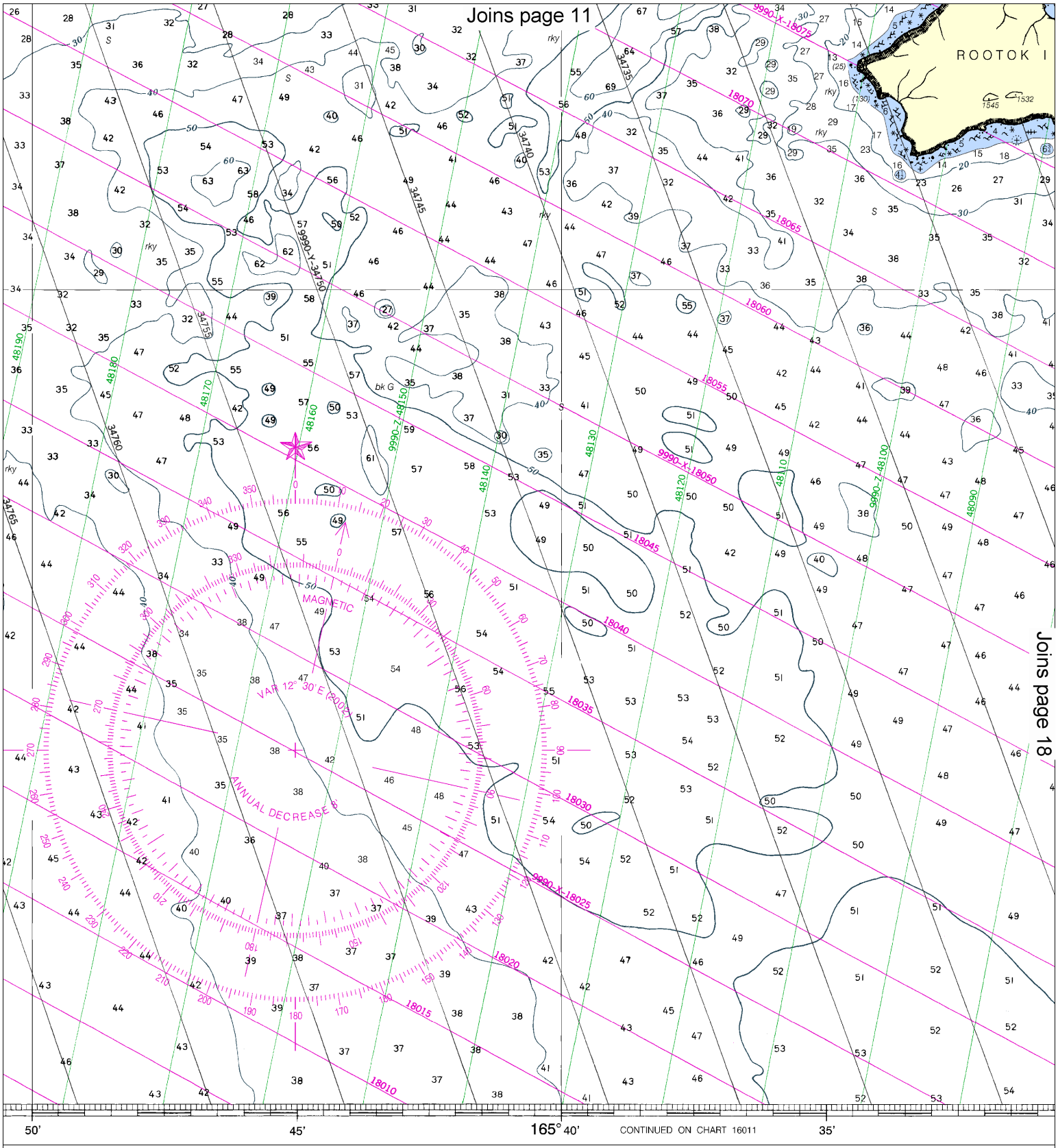
Nautical Miles

1 0 1 2 3 4 5 6 7

Yards

1000 0 2000 4000 6000 8000 10000

See Note on page 5.



HOMS

UPDATING SERVICE

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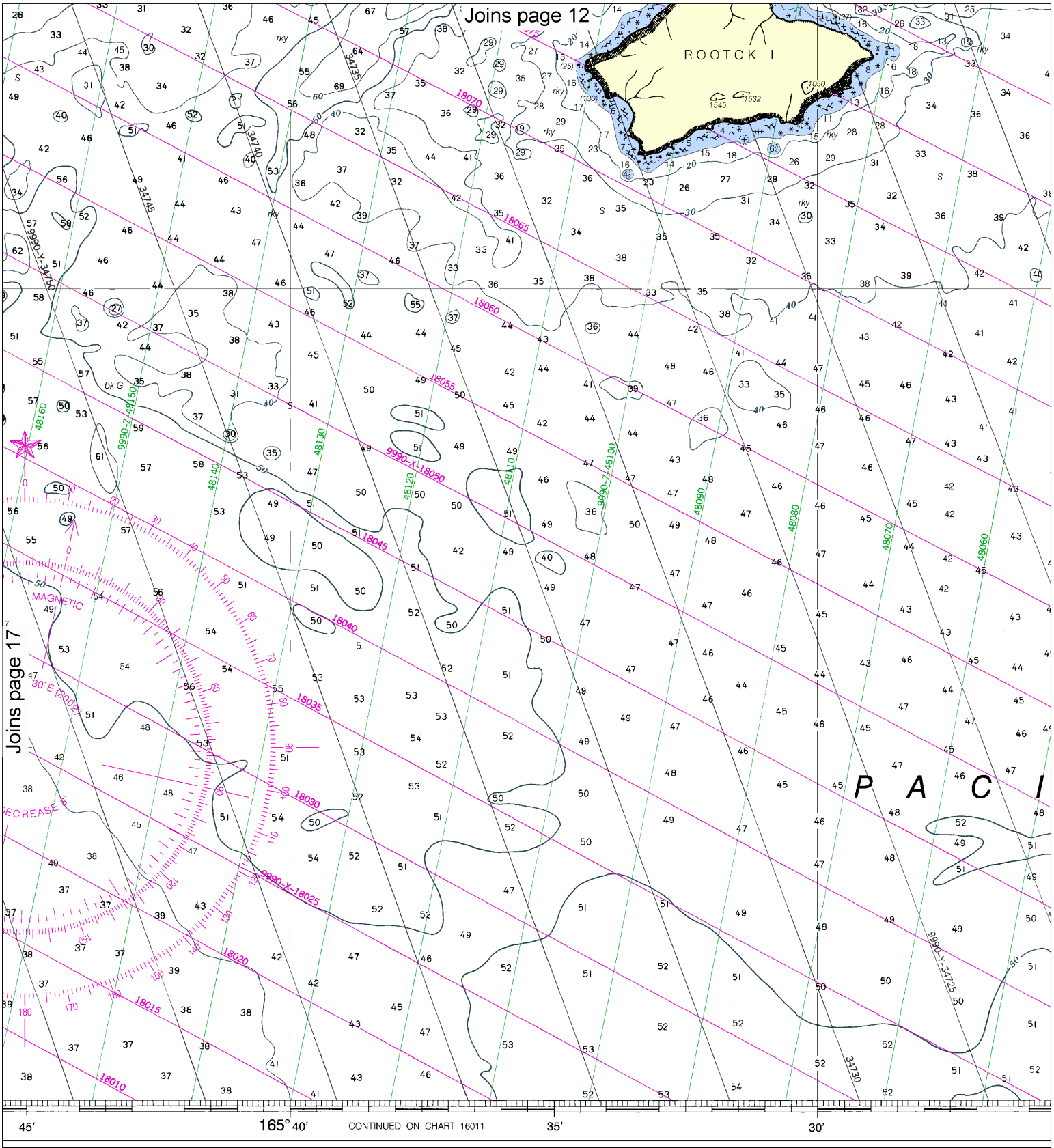

TING SERVICE
of NOTICE TO MARINERS corrections
in the lower left hand corner is available
vision (N/CS2), National Ocean Service,
20910-3282.

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Published at Washir
U.S. DEPARTMENT OF
NATIONAL OCEANIC AND ATMOSP
NATIONAL OCEAN
COAST SURV

18

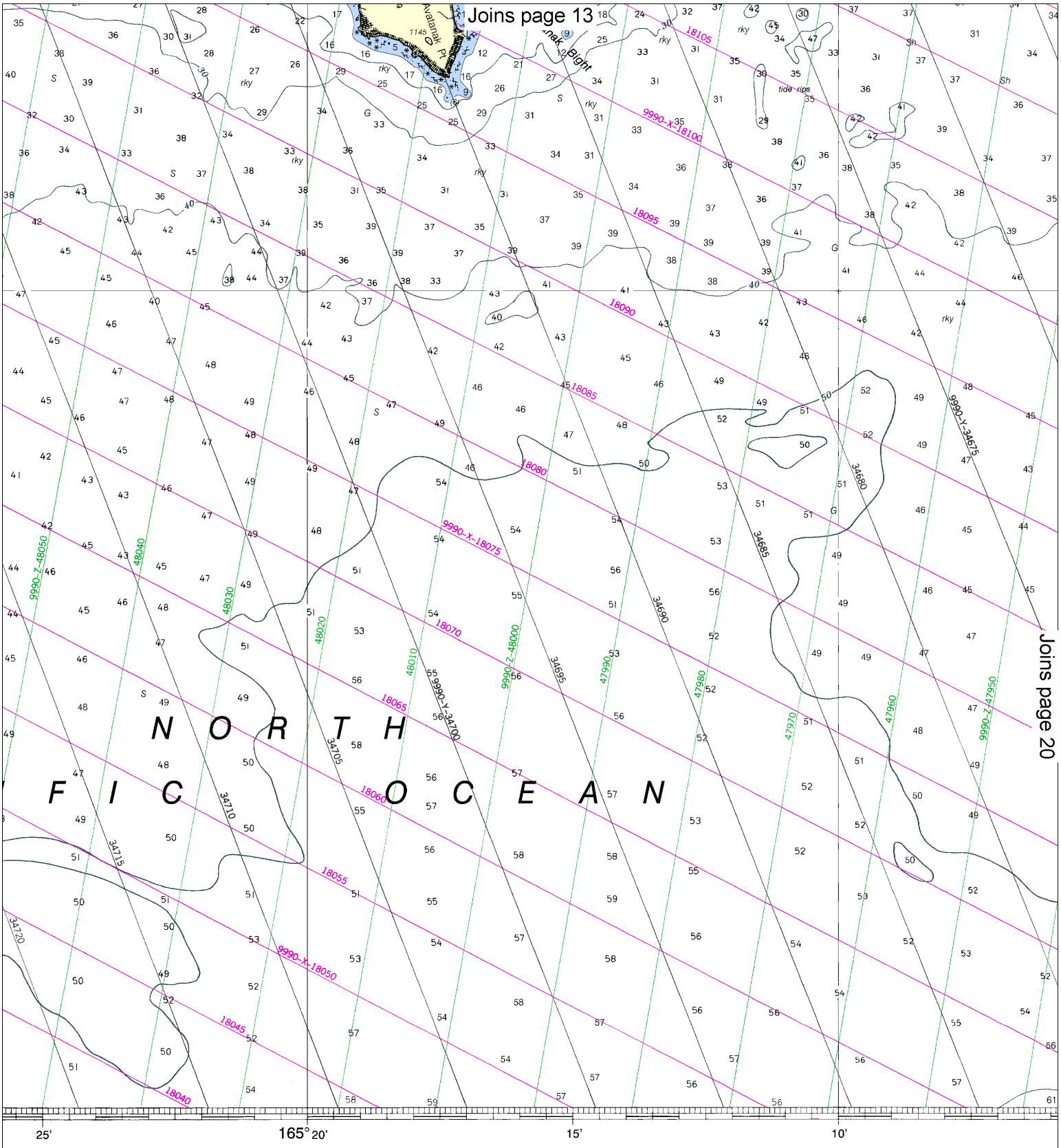
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

Nautical Miles
1 0 1 2 3 4 5 6 7

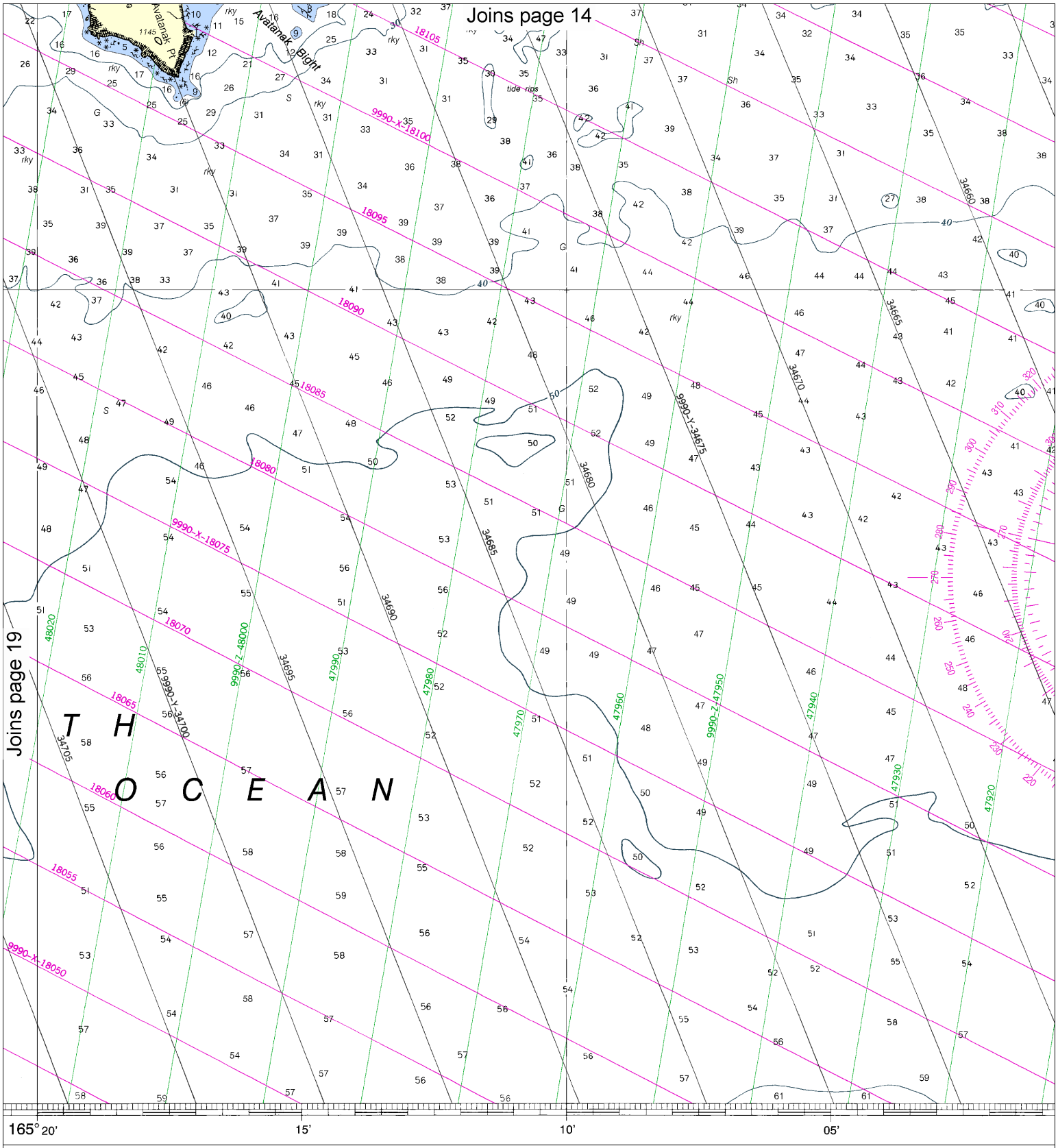
Yards
1000 0 2000 4000 6000 8000 10000

See Note on page 5.



ington, D.C.
OF COMMERCE
SPHERIC ADMINISTRATION
N SERVICE
RVEY

COLREGS, 80.1705 (see note A)
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.



COLREGS, 80.1705 (see note A)
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

FATHOMS	1	2
FEET	6	12
METERS	1 2	3 4

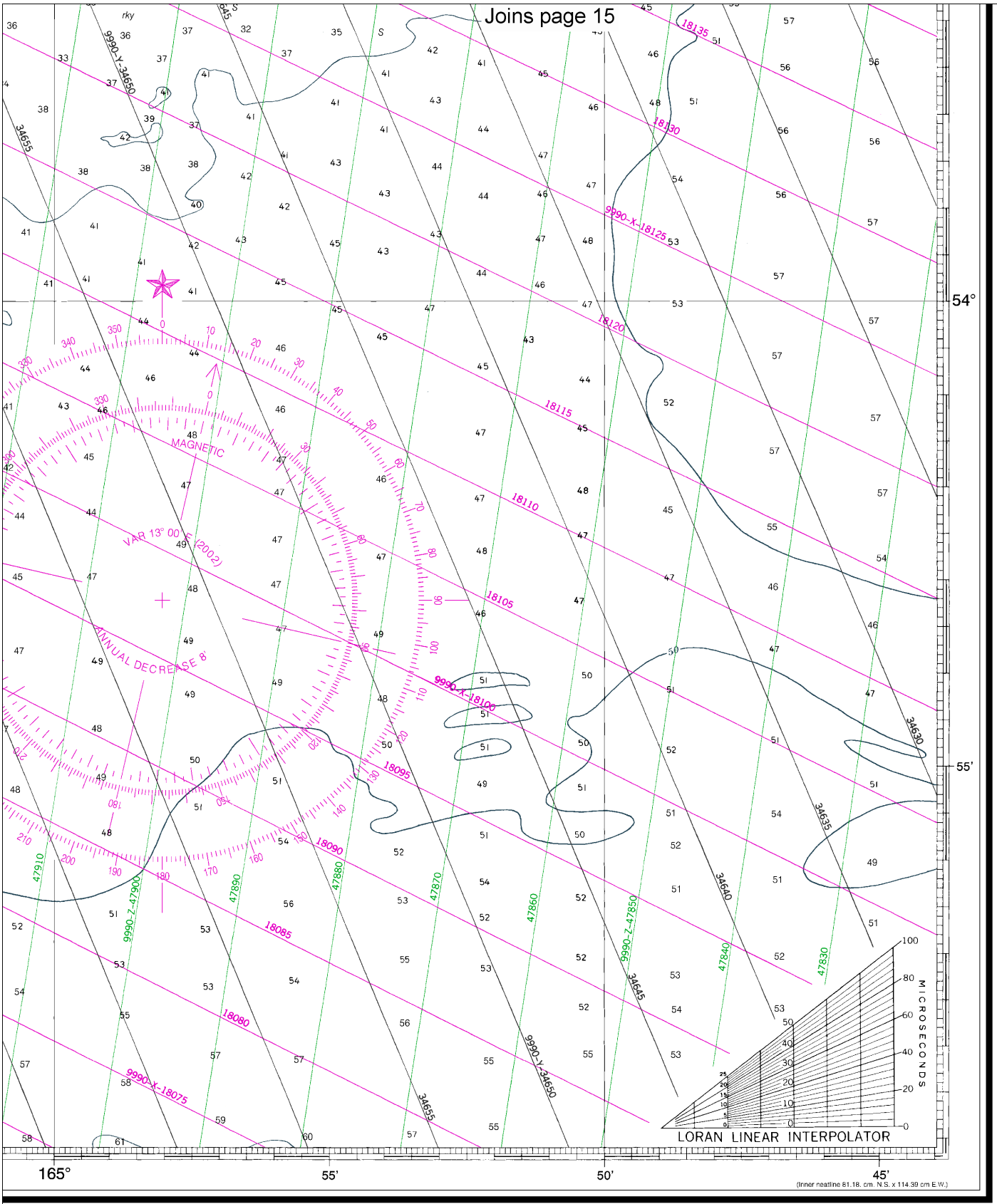
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:80,000~~

Nautical Miles
1 0 1 2 3 4 5 6 7

Yards
1000 0 2000 4000 6000 8000 10000

See Note on page 5.



(Inner neatline 61.18. cm. N.S. x 114.39 cm E.W.)

Krenitzin Islands

SOUNDINGS IN FATHOMS- SCALE 1:80,000

16531

LORAN-C OVERPRINTED

ED.NO. 7

NSN 7642014011248

NIMA REFERENCE NO. 16ACO16531

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

Quick References

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Online chart viewer	—	**http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html**
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Chart updates (LNM and NM corrections)	—	**http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html**
Coast Pilot online	—	**http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm**
Tides and Currents	—	**http://tidesandcurrents.noaa.gov**
Marine Forecasts	—	**http://www.nws.noaa.gov/om/marine/home.htm**
National Data Buoy Center	—	**http://www.ndbc.noaa.gov/**
NowCoast web portal for coastal conditions	—	**http://www.nowcoast.noaa.gov/**
National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
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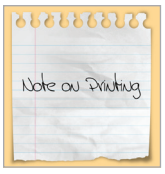

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NOAA's Office of Coast Survey The Nation's Chartmaker